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Illinois.University--College of Agric.  
Illinois farm flash







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FIRST  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 7½ minutes

January 1, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: (:25) As a public service to listeners of  
Station \_\_\_\_\_ we bring you the FIRST ILLINOIS FARM FLASH for 1940.  
These agricultural reports are presented in cooperation with the United  
States Department of Agriculture and the College of Agriculture,  
University of Illinois. Today we'll hear about THE STATE HORTICULTURAL  
SOCIETY MEETING, FARM AND HOME WEEK, INDOOR FLOWER GARDENING, FOOD FOR  
HUNGRY WILDLIFE, POULTRY LITTERS and EVERGREENS FOR OTHER YEARS.

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(1:15) With Christmas just over, many farmers are already  
looking forward to next Christmas and another New Year. To those  
farmers who've been using their poor soil and steep slopes to grow  
holiday trees, this Christmas meant the jingle of cold cash--about  
five million dollars of it. A nice profitable side line, wasn't it?  
And besides that--the trees tied down the soil and went a long way  
toward stopping erosion.

Most of the principal varieties of Christmas trees will  
grow on poor soil and steep hillsides. And farmers know from ex-  
perience that when they get trees on their badly scarred lands, the  
soil stays there.

There are farmers--of course--who grow nothing but Christmas  
trees. However--experiments conducted by federal and state agencies  
are directed mainly toward those farmers who look upon the growing of  
Christmas trees as a secondary source of income. Under good manage-  
ment--you know--a farmer can often get more cash from trees on poor  
soil than he could from crops on the same soil.

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1. THEORY OF THE EARTH AND ITS HISTORY

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THE UNIVERSITY OF CHICAGO

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1. The above said was a copy of the letter of the 1st of May 1911.

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Farmers who make money year after year from these popular Yuletide decorations practice tree conservation along with soil conservation. They select and thin and cut their trees with the constant aim of making next year's crop better than this year's.

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(1:15) A word now about indoor flower gardening.

One common mistake in growing house plants is that of using ordinary garden soil for potting them, according to J. B. Wingert of the University of Illinois College of Agriculture. Wingert goes on to say that even though you have a first-class garden soil--capable of producing quality flowers and vegetables outdoors--it isn't wise to assume that this soil alone is the best you can get for potting house plants.

You know--the frequent watering and drying--to which house plants are subjected--produces a hard, packed and undesirable soil condition for many potted plants. Wingert suggests that if you take good garden soil and add peatmoss, rotted manure or leaf mold to it--you'll find it stays in better condition than when the soil is used alone.

If your garden soil is at all heavy--a small amount of sand added to the mixture will improve the drainage. For cacti and some of the other thick fleshy-leaved plants which are so popular right now--a mixture of about equal parts of soil and sand with a small amount of humus added serves well. A few other well-known house plants such as gloxinias, African violets and the foliage-type begonias thrive in a mixture which contains almost as much humus material as soil.

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It is suggested that the following be included in the report of the Committee on the subject of the proposed new law:



(1:15) Here's a note about cafeterias for birds and small animals.

A total of 560 "emergency" winter feeding stations will provide food for Illinois' wildlife if and when snow lies deep this winter. Approximately 32,000 pounds of grain--mostly corn--will be fed through the stations this winter--and it's estimated that approximately 10,000 quail and pheasants will use the stations.

The stations consist of barrel or trough feeders placed under a lean-to of tree boughs adjacent to good cover. In addition to them--scores of feed patches--planted by farmers with seed furnished by the Conservation Department--will provide food for birds and small animals.

B. B. Clark, state coordinator for the Soil Conservation Service, says that wildlife conservation and soil conservation go hand in hand. He lists protection of timbered areas against fire and grazing, establishment of vegetative cover on denuded hillsides and in gullies, increase of hay and pasture acreages, and contour strip-cropping as practices which not only conserve soil but also improve conditions for wildlife.

These and other conserving practices are being furthered throughout the state in the land-use program which the University of Illinois College of Agriculture is conducting in cooperation with the Soil Conservation Service, the AAA and other agencies.

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( :45) Now let's talk with the poultrymen about litters.

Of course--various kinds of litters are being used successfully. But in selecting a litter, one must consider the expense involved. H. H. Alp, of the University of Illinois College of Agriculture, says that ground corn cobs and clean straw are probably two of the most convenient and inexpensive litters for Illinois poultrymen.

However, chicks will eat practically any litter when they're short of feed. So Alp says care must be taken to see that chicks are not put in the brooder house on litter without feed, and the amount of feeder space should be carefully checked, too. Insufficient feeder space may cause a portion of the flock to go hungry, and as a result they may try to fill up on litter.

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(1:05) The eighty-fourth annual Illinois State Horticultural Society meeting will be held in Urbana-Champaign this year on January 3, 4 and 5 in cooperation with the department of horticulture, University of Illinois College of Agriculture, as announced by Joe B. Hale, of Kell, the Society's secretary.

The three-day program of America's oldest farm organization plans to be one of special interest to Illinois fruit growers. Twenty-four speakers from six different states--Illinois, New York, Missouri, Maryland, South Carolina and Michigan--will appear on the program. Illinois fruit growers appearing on the program are L. M. Smith, of Ozark; Joe Hale, of Kell; C. F. Heaton, of New Burnside; Frank Chatten, of Quincy, and G. L. Smith, of Rock Island.



Subjects for discussion include mulching strawberries, retail demand for apples and other fruits, marketing, trucking, green crops in relation to soil building, a national apple program, prices, management, fertilizer, disease and spray.

All members of the Illinois State Horticultural Society are urged to attend this annual meeting being held in the Armory at Champaign, Illinois, January 3, 4 and 5.

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(1:20) And now in closing today's ILLINOIS FARM FLASH may we take this opportunity to remind you of the Forty-Second Annual Farm and Home Week to be held at the University of Illinois College of Agriculture from January 8 to 12.

The five-day program contains something of interest for everyone. If you're a corn grower--you'll want the report that will be given of the performance tests. If you raise wheat, you'll want to learn about the things plant breeders are doing to obtain special qualities in varieties--qualities that commercial varieties don't have--such as resistance to mosaic, leaf rust and stiffer straw.

It may be that your special line is poultry. You'll want to hear what poultry specialists say about keeping poultry healthy. Flock owners are invited to bring specimens for autopsy. There'll be discussions on feeding, hatching, production and other poultry topics of interest.

For the horticulturists, there'll be information about ornamental shrubs with edible fruits, newer and better varieties of vegetables and a hundred one other worth-while discussions.





There's information for the homemaker, the rural youth member, beekeeper, livestock man, the dairyman, the tractor operator and everyone who has an interest in the farming enterprise.

Plan now to attend the Forty-Second Annual Farm and Home Week to be held at the University of Illinois College of Agriculture in Urbana-Champaign from January 8 to 12.

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CLOSING ANNOUNCEMENT: (:10) As a public service to our listeners of Station \_\_\_\_\_ we have brought you THE ILLINOIS FARM FLASH presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

The following information was obtained from the  
files of the Bureau of Investigation, Department of Justice,  
Washington, D. C., and is being furnished to you for your information.

On June 1, 1941, the Bureau of Investigation received information  
from the Federal Bureau of Investigation, New York City, that

the following information was received from the

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The following information was received from the  
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SECOND  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 7½ minutes

January 4, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: (:20) As a public service of Station\_\_\_\_\_we again bring you the ILLINOIS FARM FLASH presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Today we're going to talk about RATIONS FOR CHICKS, THE BIG SEASON FOR CHICKS, THE DAIRY SITUATION, FARM ACCIDENTS and CULLING COWS.

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(1:30) You know--most herds would make more money if some of the lower producing cows were sold, according to E. E. Ormiston of the University of Illinois College of Agriculture. Ormiston mentions one dairyman who had an especially good herd--both in type and production. When the dairyman was asked how he got such a good herd, his reply was: "My best customer is a butcher."

Any time is a good time to cull out cows that aren't making a profit. But it seems that between now and May would probably be the best time to cull the dairy herd.

The reasons? Well--prices for beef are fairly good now and grain prices are relatively high--and are increasing. The "canner cow" will bring a fair price now--and after all it does cost quite a lot to feed them. Not only that--but when grass-fed cattle come on the market in the spring--the prices for low-quality beef probably will become lower. Then these dairy cows will sell cheaper than they would now with less competition.

Ormiston says when one decides which cows he's going to cull--then, if they're now in milk--milk them until they've passed

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the peak of production and are no longer profitable. After that you can send them to market and get them out of the herd. Even cull out the heifers from low-producing cows so there'll be no more like them.

Of course, only those dairymen who have been keeping records of feeding and production will know exactly what cows to cull. That's one advantage of being a dairy herd improvement association member. So you may want to contact your farm adviser to learn about the next dairy herd improvement association being organized in your community--or the one existing at the present time. It pays to keep records on producing cows--because it pays to cull the unprofitable ones from your herd.

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(1:00) Now--while we're on this subject of cows--let's talk for a few moments about the dairy situation in general.

Many dairymen will remember the prices they received for milk and cream last winter. Well, this winter prices may be considerably better.

According to the outlook, prices of butter and other dairy products will average higher this winter than last.

One of the important indications of higher prices for dairy products this winter is the smaller supply of dairy products in cold storage. Cold-storage holdings that were 50 per cent above average last fall had been reduced to about average this fall.

Another of the hopeful signs that dairy prices may average higher this winter than last is the increased consumption of





Most poultrymen are handicapped by the low egg production of their flocks. On the average, the hens in this country lay only about a hundred eggs apiece in a year.

But the hens in many flocks lay twice as many eggs. Records show that with hens that are twice as productive, a poultryman makes about four times as much for the work of taking care of them.

Regarding the importance of the control of pullorum disease in poultry flocks, considerable advancement has been made to reduce death losses. Much of this improvement in hatchability and reduction in chick losses can be credited to more effective and more widely used methods for controlling pullorum disease. The adoption of the National Poultry Improvement Plan in 1935 has helped to bring about great and greater control of pullorum disease year by year.

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(1:30) Here are some questions and answers about the brooding of chicks. The questions come from Illinois poultrymen. The answers are given by H. H. Alp, Poultry Extension Specialist at the University of Illinois College of Agriculture.

Question number one: How can one stop cannibalism? Well--Alp says once the habit is formed it's very difficult to correct. However, quick action at the start may save a lot of future trouble. And here are some of the things you can do. Try to provide more house room or outdoor range. Then you can give the chicks something to pick--something beside their fellowmen.....something like cabbage, potatoes, beets and such as that. Another good practice is to darken the room and use a red light.

the investigation was conducted by

the FBI. On the other hand, the FBI

did not conduct an investigation.

But the FBI is not the only law

enforcement agency that has been

involved in this case. The FBI

has been involved in this case

for a long time. The FBI

has been involved in this case

for a long time. The FBI

has been involved in this case

for a long time. The FBI

has been involved in this case

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There are two main reasons for

this. The first reason is

the second reason is

the third reason is

Question number one: How

many people are involved in

this case? The answer is

that there are many people

involved in this case.

The second reason is

the third reason is

the fourth reason is

This matter about light brings up another question: Will burning a dim light in the brooder room all night be of any value in preventing crowding? Alp says, yes. That's provided--of course--the crowding isn't being caused from a floor draught or some similar cause. The use of all-night light with chicks is becoming quite common among poultrymen.

Here's question number three. Is a wire floor necessary in a brooder house? Alp says, no--although a wire floor is often used as a sanitary means to protect the chicks against coming in contact with disease-contaminated droppings. There may be some trouble from floor draughts when wire is used over the ordinary type floor.

One more question. How should brooder houses be ventilated? Most brooder houses, according to Alp, are easily ventilated--because they're heated. As a result a window or opening near the ceiling will serve quite satisfactorily as both inlet and outlet for ventilation during the period the chicks are young.

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(1:30) This is the time of the year when we strive earnestly to fulfill the many resolutions we made January 1. Or did we make any? Once the first few weeks find the resolutions unbroken, it isn't quite so difficult to continue. Well--here's one resolution that's good any time in the year--one of these we can make collectively. It comes from E. L. Hansen of the College of Agriculture, University of Illinois: Fewer accidents in 1940.

Fire, explosives, electricity, fuel, machinery and animals carelessly handled--daily take life and property. It seems

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that the circular saw, hay fork and tractor are listed as the machines causing the most accidents on the farm. But there are others.

However, no matter what machine is being operated, Hansen says we must keep our minds on operating it instead of thinking or worrying about something else. Whenever you take your mind off what you're doing, you may not react quickly enough if something a little unusual comes up--like hitting a bump or ditch to throw you off when you're operating a tractor. Machinery is not dangerous or hazardous when it's run properly. A lot of blame is on the operator.

No one agency has ever yet accomplished what it wanted to accomplish in accident prevention. It's a job that demands the most in cooperation from everybody concerned. So we might make two simple resolutions for 1940. First--I'll keep my mind on what I'm doing, and second--I'll be more careful.

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CLOSING ANNOUNCEMENT: (:10) And with that suggestion we bring to a close another ILLINOIS FARM FLASH. These agricultural reports come to you in cooperation with the United States Department of Agriculture and the College of Agriculture University of Illinois.





THIRD  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 7½ minutes

January 8, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) The ILLINOIS FARM FLASH comes to you as public service of Station \_\_\_\_\_ and is presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Included in the list of agricultural reports is a word about WINDBREAKS FOR EVERY FARMSTEAD, LAMB FEEDING, CURING PORK, CALF FEEDING and PASTURE MANAGEMENT.

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(1:30) First--suppose we talk about pasture management. Yes, I know that may sound a little out of season to some of us. But let me tell you this little story--and then I believe you'll agree with me that anytime, all the time is the time to talk about pasture management.

The story comes from an English pasture specialist, Stapledon. Someone asked him what were our pasture needs. Stapledon answered that the things our pastures needed besides management were management, management and more management.

Now any practice that will increase and maintain the productivity of a pasture may be said to be good management. This may sound like a large order but certainly not beyond the reach of anyone who wishes to have a good pasture.

It may be the use of a good seed bed mixture adapted to the particular region; seed bed preparation, fertilization, liming, length of grazing time, the kind of livestock, clipping of weeds, spreading of droppings, rolling and a number of others.

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We must consider pasture as a crop the same as oats or corn. So we must keep in mind that we must use the same care in preparing the seed bed. Remember, too--that a permanent pasture mixture is better than pure seedings. Don't forget periodic applications of phosphate and the use of limestone.

A number of good suggestions about pasture management are contained in Illinois circular number 465. It also lists a number of mixtures for various sections in the state. Your farm adviser has copies available for free distribution. You may also secure a copy of Illinois circular 465 by addressing your request to the University of Illinois College of Agriculture at Urbana.

(1:15) The first six months is the most important period in the growth of the calf, according to W. B. Nevens, professor of dairy cattle feeding at the College of Agriculture, University of Illinois. Nevens continues by saying a calf that is vigorous and well grown at six months of age is more likely to develop into a larger, better and more useful animal than one that is weak or stunted at that age.

We should feed whole milk for 3 or 4 weeks. Of course, whole milk is the best feed for calves for it furnishes proteins of high quality, lime and growth vitamins and butterfat which yields energy. But its cost usually makes its use prohibitive as soon as other feeds may be substituted for it.

One pound should be used daily for each ten pounds of live weight. Very young calves require fresh, sweet, whole milk at body temperature--about 100 degrees F. Naturally, it's



necessary that calves receive some of the first milk from their mothers, since this aids in clearing the digestive tract and helps prevent infection.

Illinois circular 440--entitled "Feeding the Dairy Herd"--contains further information about feeding the dairy calf. You may secure a copy from your farm adviser.

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(1:30) Now--perhaps you'd like to write down this recipe for curing some of the heavier cuts of pork such as the hams and picnics. This recipe is for a sweet pickle. It will cure 100 pounds of meat. If you're curing only 50 pounds--then, of course, you'll use only half as much. If you have more than 100 pounds of meat, you'll use more of the cure in the same proportion.

Use 12 pounds of salt--that is, just common salt. Then 3 pounds of sugar--either granulated or brown, and 5 ounces of saltpeter mixed up and dissolved in 6 gallons of water. Now, let's check to see that we have all of it down: 12 pounds of salt, 3 pounds of sugar, 5 ounces of saltpeter and six gallons of water.

And here's the way to apply this cure. First, mix the salt, sugar and saltpeter together--dry. Then rub the meat lightly with the dry mixture. Next dissolve the remainder of the cure in the water. Place the meat in a clean water-tight barrel and pour in the dissolved curing solution. Remove the cuts at the end of the first and second week and rearrange them in the mixture. Then let them remain in the brine until cured.





Now how long do you leave it in the cure all together? Well, that depends on the weight of the cut. You allow about three days for each pound the cuts average. For instance, if a ham weighs about 12 pounds, we'll say--it should be cured in about 36 or perhaps 40 days. For a heavier cut--say 15 pounds--about 45 or 50 days.

Of course, cured meat should always be smoked for the good flavor. So when it's cured, you easily remove it from the mixture, wash off the excess salt, soak it in water for a few hours and then let it dry overnight in the smoke house. Almost any hard wood is all right for smoking. Apple's good--so's sassafras, if you like the flavor--and green hickory is also very good. For best flavor the hams and picnics should be smoked about 36-48 hours.

Further information pertaining to the smoking and curing of pork is contained in a mimeographed pamphlet entitled "Eat Your Own Pork." You may write directly to the University of Illinois College of Agriculture or secure your free copy from your county farm adviser.

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(1:15) Here's a word about lamb feeding. It comes to us from W. G. Kammlade, professor of sheep husbandry at the University of Illinois College of Agriculture.

Kammlade says an excellent grain ration for lambs is 20 pounds of coarsely ground or cracked corn; 20 pounds of coarsely ground, crushed or whole oats; 10 pounds of wheat bran; and 10 pounds of linseed oil meal or soybean oil meal. Now in addition to this grain mixture, the lambs will need some of the best-quality alfalfa or clover hay. They like small amounts of good corn silage, to



It may be that the grain mixture mentioned isn't easily secured and prepared. In that case, equal amounts of corn and oats can be used with good results. After the lambs are two months old the grain need not be ground. Just feed the lambs liberally in creeps on this mixture until pasture is available. If the pasture is very good, the lambs may stop eating grain even though a creep is built in the field. The milk of their mothers and the pasture satisfy them--and little, if any, grain is likely to be eaten until after they're weaned or pasture becomes short.

Although they may eat no grain, lambs that are raised by good milking ewes on very good pasture will make gains at least equal to those fed in creeps before pastures are ready. Whenever pastures are short, creep feeding is advisable, as the extra feed helps to keep the lambs in good condition to be sold to advantage at weaning time.

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(1:30) Many Illinois farmsteads--in a state of trim repair, and otherwise well planned--stand out on the prairie like "sore thumbs" without a single tree to protect them from the winter winds, says Guy Hawkins, forester at the College of Agriculture, University of Illinois.

Hawkins goes on to point out that farmers can not only plant a windbreak at very small expense--but they can save for themselves hundreds of dollars annually in feed and fuel costs. Of course, we mustn't discount the family's personal comfort and the beautification of the farmstead throughout the year.



Now--how much will a windbreak cost?

That depends on the length of your windbreak and the size planting stock you buy. But in any case, the cost can usually be arranged to fit your pocketbook. If you plant trees from one and one-half to five feet in height--which is recommended for best and quickest results--it will cost you anywhere from thirty-five cents to one dollar a tree. If you're willing to wait three or four years longer for results--in order to save yourself some more money--you can buy six to ten inch spruce or fir trees at three and a half cents each.

The University of Illinois Department of Forestry, in cooperation with the various county farm bureaus, will supervise the planting of more than fifty demonstration windbreaks throughout the state in the spring of 1940. That isn't such a long time from right now. But in the meantime, find out from your county farm adviser when one of these demonstrations will be held in your county and then plan to attend. Also, ask your farm adviser for the Natural History Survey Circular 29, "Windbreaks for Illinois Farmsteads."

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CLOSING ANNOUNCEMENT: ( :10) The ILLINOIS FARM FLASH which came to you in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois was presented as a public service of Station \_\_\_\_\_.

Presented in furtherance of the Agricultural Extension Act  
approved by Congress May 3, 1914. H. P. Rusk, Director  
Extension Service in Agriculture and Home Economics  
University of Illinois, Urbana

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FOURTH  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois.

Speaking time: 7½ minutes

January 11, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: (:20) It's FARM FLASH time at Station \_\_\_\_\_. As a public service to our listeners----we again present these agricultural reports in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Today we are to hear about NATIONAL PLAN CHICKS, TRACTOR CARE, DAIRY COW PRICES and LIMESTONE.

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(1:45) There is probably no one thing that has contributed more to agriculture than----the development more than one hundred years ago----of the understanding of soil acidity and the use of limestone, according to C. M. Linsley, College of Agriculture, University of Illinois. Linsley goes on to say that the use of limestone on acid soil has long been recognized as the key to soil conservation and successful farming. In fact----it's the key to practically all our farm programs.

Linsley points out that even though Illinois leads all other states in the application of limestone, and that two-fifths of the nation's total is spread in this state----we are still not spreading enough to maintain the present lime content of the soil.

Farm Bureaus, the Triple-A, banks, insurance companies, businessmen and every agency----as a group interested in increasing farm income----must work together on a concentrated drive to get this important piece of work done----the spreading of limestone.

# THE HISTORY OF THE

REIGN OF KING CHARLES THE FIRST

IN WHICH ARE CONTAINED THE

CAUSES, THE CONDUCT, AND THE CONSEQUENCES OF THE

WAR, WHICH WAS CONTINUED IN GREAT BRITAIN

FROM THE YEAR 1642, TO THE YEAR 1649

BY JOHN BURNET

OF THE UNIVERSITY OF OXFORD

IN TWO VOLUMES

THE SECOND VOLUME

IN WHICH ARE CONTAINED THE

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BY JOHN BURNET

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IN TWO VOLUMES

THE SECOND VOLUME

No longer do we need to brave the ridicule of our neighbors when we spread limestone. Linsley points out that at one time it took courage to spread limestone when everyone considered the man a little odd for hauling and spreading stone on his land. But now----the situation is almost reversed. We wonder in the face of all facts----based on actual figures of increased farm income due to the application of limestone----how any farmer has the courage not to spread limestone on acid land.

Linsley urges every Illinois farmer to spread at least one carload of lime in 1940. No matter how small the amount----it will pay dividends and stand as a living proof of the actual worth of the use of limestone. Of course, you'll want to test your soil----first. That takes little time and no expense. Your farm adviser will be glad to assist you, or you can obtain full instructions by writing directly to the University of Illinois College of Agriculture at Urbana.

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(1:45) Now----suppose we glance for a moment or two at dairy cattle prices. If you have been watching milk cows sell during the past few years----you probably know they are now selling at pretty high prices. On the average during the past year----farmers got more than fifty-eight dollars a head for milk cows. That's the highest average price since 1929.

The present high price as compared with other products can't last. That is, "the price of cows is higher in relation to prices of dairy products than can be maintained over a series of years." In relation to butterfat, the price of cows is the highest on record. And except for 3 years out of the last 30, the price of cows is also the highest on record in relation to milk.

1.  $\frac{1}{2} \log \frac{1}{2} = -0.5$

The high price of milk cows during the past year hasn't been due to high prices for milk and butterfat. One of the reasons for the high price of milk cows is the high price of cutter and canner cows. That is, the price of a milk cow is determined partly by her value for beef. During the past year, the price of cutter and canner cows averaged more than double what it did in 1932 and 1933. The price was the highest in 10 years for this class of cattle.

So dairy cows are high priced now, compared with prices of dairy cows in past years. But a better way to judge the price of cows is to compare it with prices of all commodities farmers sell.

Let's look into that. Let's see how prices of cows and prices of all farm products compare with each other now and how they compared with each other back several years ago when times were more "normal." That is, back before the First World War, from 1910 to '14.

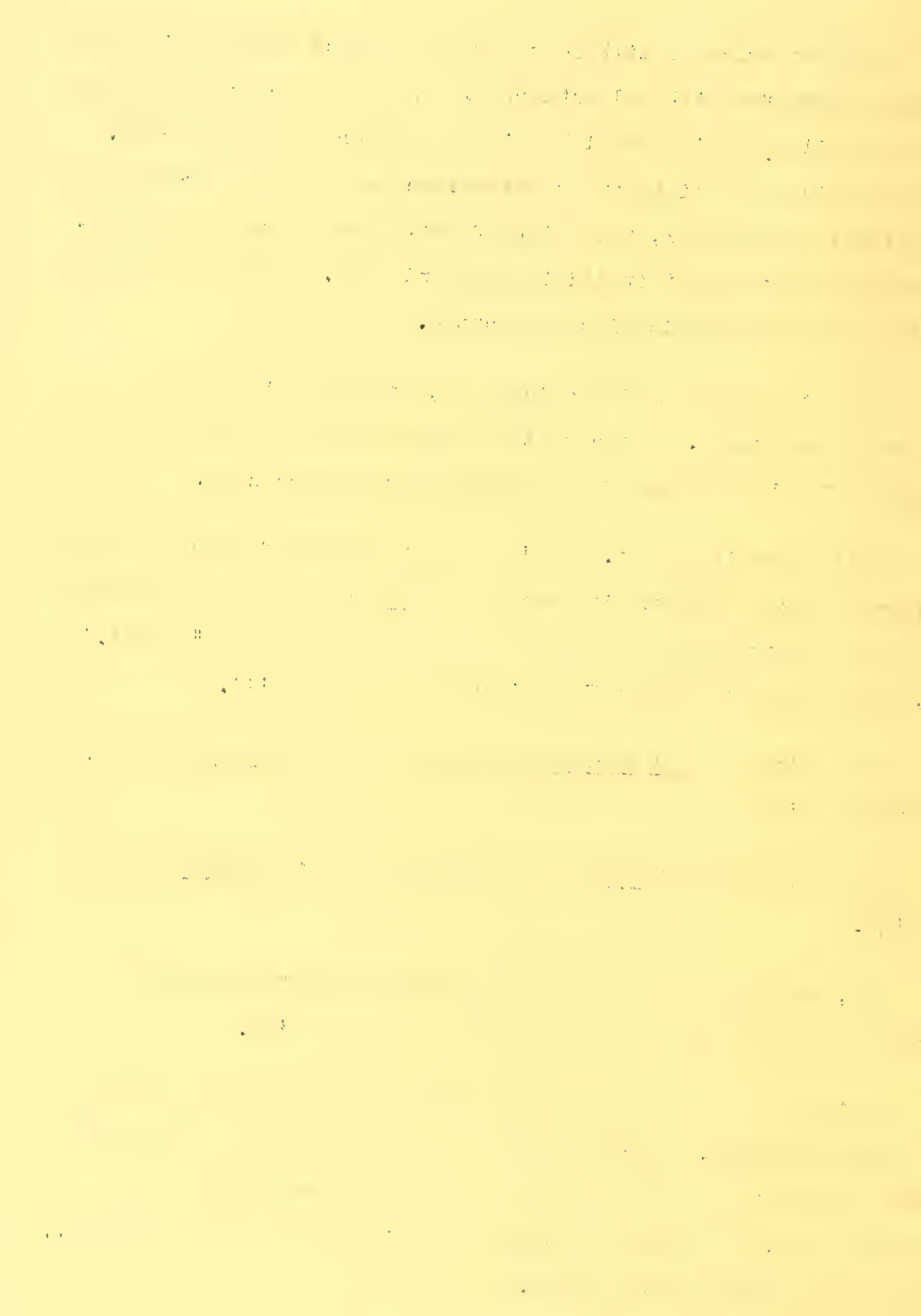
The prices of all farm products now average below what they were in 1910 to '14

But the price of cows averages about a fifth higher than in 1910 to '14.

So, compared with prices of all farm products, prices of dairy cows are much higher than they were in 1910 to '14.

But as I have said before, the price of cows is not likely to stay so much higher. Either the general level of farm prices will stay about where it is and the price of cows will come down, or if farm prices go up, the price of cows is not likely to go up as much.... and so much for dairy cattle prices.

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(2:30) Illinois farmers are now beginning to order baby chicks. Many farmers will again order chicks under the National Poultry Improvement Plan. Others will order national-plan chicks for the first time. So a lot of farmers will want to know more about these chicks.

The first thing many of them will want to know is: Where can we buy national-plan chicks? The answer is that several hundred hatcheries in 44 states will have national-plan chicks on sale. For a list of the hatcheries operating under the national plan in your vicinity, write V. R. Usrey, Superintendent of Poultry, State Department of Agriculture at Springfield.

Second, how are national-plan chicks produced? The answer to that depends on the breeding stage you're talking about. Under the national plan, chicks are produced commercially under three progressive stages----U. S. Approved----U. S. Verified----and U. S. Certified. The most advanced of these three breeding stages is U. S. Certified.

So let's put the question this way: How are U. S. Certified chicks produced? To answer that----let's consider the breeding work of one of the leading poultry breeders right here in the Middle West.

Each year this breeder trapnests several hundred pullets under the supervision of the official State agency that cooperates in the administration of the national plan in his state. Each pullet that lays 200 or more eggs during the year averaging at least two ounces each and that meets other requirements qualifies as U. S. Record of Performance breeding stock.





ist at the University of Illinois College of Agriculture. Hay points out that----every 700 to 1,200 hours of operation----that is, one to two years----tractors need a thorough checking over. Illinois farmers who make this a practice seldom encounter costly delays due to breakdowns in busy seasons. Furthermore----the life of the tractor is lengthened.

To stimulate further interest in the periodic checking of tractors for needed repairs and adjustment----a number of tractor schools are now being held throughout the state. These schools are conducted by Mr. Hay in cooperation with various farm advisers and implement dealers. Each school accommodates 45 tractor operators. You might wish to contact your own farm adviser as to the date of the tractor school in your locality.

Finally----Circular No. 499, "Tractor Repair and Maintenance," is available from the University of Illinois College of Agriculture at Urbana or you may also secure a copy from your local farm adviser.

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CLOSING ANNOUNCEMENT: (:10) Today's ILLINOIS FARM FLASH came to you as a public service of Station \_\_\_\_ presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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FIFTEENTH  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 7:20 minutes

February 19, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: (:10) Here is today's ILLINOIS FARM FLASH----a public service of Station \_\_\_\_\_ brought to you in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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FLASH! "Elec Tricity" is the best hired man south of the north pole----- according to R. R. Parks, specialist in agricultural engineering. Parks says that if you want to compete with this kind of a hired man you'll have to work for about five cents a day. Because-----"Elec Tricity" is a willing and economical worker; on the job 24 hours a day; and almost a perfect night watchman. He pumps the water; herds the cattle; looks after the pigs and chickens; and, yes----even takes care of the baby. Consult your farm adviser now about the possibility of your getting electric service in 1940.

-30-

FLASH! A blackberry bush-----more than 9 feet high-----that gets its nutrients from 700 cubic feet of earth!!!!!! A. S. Colby----specialist in small fruits----has such a plant on display at the Horticultural Field Laboratory in Urbana. It was originated by Dr. G. M. Darrow of the U. S. D. A. and named in honor of Professor Brainerd---formerly of Vermont University. The Brainerd blackberry yields four or five t' es as much as the ordinary blackberry varieties and is more resistant hot dry weather. For further particulars concerning the Brainerd rite A. S. Colby at the University of Illinois College of Agriculture.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF THE HISTORY OF ARTS

OFFICE OF THE DEAN OF THE FACULTY

CHICAGO, ILLINOIS

TO THE HONORABLE THE PRESIDENT OF THE UNIVERSITY

AND THE HONORABLE THE DEAN OF THE FACULTY

OF THE UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS

DEAR SIR:

Yours

of the 10th inst. has been received.

I am sorry to hear that you are ill.

I hope you will soon be well.

I am, Sir, very respectfully,

Your obedient servant,

JOHN D. HARRIS

DEAN OF THE FACULTY

UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS

1900

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CHICAGO, ILLINOIS

1900

whether the soil is level or rolling. So you can see that this part of the problem affects all of the crop land in the state.

Now---plowing under straw, cornstalks and other crop residues helps in the solution of this problem. But the best and most important means of adding fresh organic matter and nitrogen is by plowing under good legume crops. To grow these good legume crops requires--on most of our soils---an application of limestone.

Walker recommends that Illinois farmers will do well to make the application of limestone their number one soil conservation practice in 1940.

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(2:00) With oats seeding time just around the corner--let's check up on our selection of varieties and seeding practices.

You know---oats is a cool weather crop--sensitive to hot dry periods---so you 'll want to use early varieties and seed early. Usually oats seeds contain enough weed seed to make fanning very much worth while; besides you'll get larger seeds by fanning which yield more than the same number of small ones. Under the same conditions---drilling will give better yields than broadcasting. However---there's a greater amount of labor involved.

According to G. H. Dungan, Chief in Crop Production at the University of Illinois College of Agriculture----we need fewer acres of oats but better yields and better quality. One way to improve the returns from oats is to grow better varieties, keep them pure and use the best cultural methods.

Results of variety tests at the DeKalb Field in northern Illinois show Iowar, Fort and Columbia as the three leading varieties---with yields of 65, 66 and 60 bushels per acre last year.

[illegible]



At the Urbana Field in the central part of the state---Columbia, Fort and Gopher were the three most promising with yields of 54, 54 and 50 bushels per acre last year. At the Alhambra Field in southern Illinois -----Brunker, Columbia and Burt were the three high-yielding varieties with 43, 39 and 35 bushels respectively. In all parts of the state a high-yielding variety, Marion (C. I. 3247), is not mentioned among the leading three since there is no seed of this variety available.

In a mimeographed pamphlet---Agronomy 762---compiled by Professor Dungan in cooperation with W. L. Burlison, Head of the Agronomy Department at the University of Illinois College of Agriculture -----there are listed the results of spring oat variety tests on agronomy crop experiment fields. Thirty-seven varieties are listed for northern Illinois; forty-nine for the central part of the state; and thirty-six varieties for southern Illinois. The number of years in which the varieties have been on test together with three-year yields and an average comparative yield are listed in table form. Ask your farm adviser for Agronomy 762. -30-

FLASH! 116 Illinois farmers have obtained FSA loans during the past two years for the purchase of farms. 126 loans will be made in 1940 according to W. J. Carmichael, State FSA director. The loans are made possible under the Bankhead-Jones tenant-purchase program. The tenant-purchase program of the FSA is one of the many activities which are being carried on by state and federal organizations in cooperation with the University of Illinois College of Agriculture in an effort to obtain greater conservation of soil, water and human resources.

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FLASH! The annual meeting of the ILLINOIS FARMERS INSTITUTE and DEPARTMENT OF HOUSEHOLD SCIENCE will be held in Decatur, Illinois, Wednesday, Thursday and Friday of this week, February 21, 22 and 23.



Twelve sessions of special interest to both men and women are open to the general public without charge. Speakers of national reputation will bring a wealth of knowledge on a variety of subjects. Heading the group of eight speakers from the University of Illinois College of Agriculture will be Dean H. P. Rusk. The time again----February 21, 22 and 23----the place, Decatur, Illinois.

FLASH! Five and one-third million trees were available for planting stock by the State Division of Forestry on January 1. One month later there were not enough trees left to plant a hundred acres. That's the answer of Illinois farmers to the question of tree planting in the national conservation program emphasized by the University of Illinois College of Agriculture. J. N. Spaeth, Head of the Department of Forestry, says that their principal aim in forest-planting research is to improve the quality of planting stock and determine the most valuable species for the various types of soil.

FLASH! One of the most important units in the farm kitchen is the kitchen sink----says R.R. Parks, agricultural engineer at the University of Illinois College of Agriculture. Imagine---even a man knows----Parks mentions, that the sink itself should be large enough for dish-pans, for cleaning vegetables and for piling dirty dishes; located properly in relation to natural light, stove, cabinet, and vegetable storage; and of correct height to avoid that back-tiring stoop. A mimeographed pamphlet--with illustrations---entitled BUILDING A SINK CABINET has been prepared by Parks---and is now available for free distribution. You can secure a copy from your local farm adviser or write directly to the University of Illinois College of Agriculture at Urbana.



CLOSING ANNOUNCEMENT (:10) And so we conclude another ILLINOIS FARM  
FLASH-----a public service feature of Station\_\_\_\_\_ presented in  
cooperation with the United States Department of Agriculture and the  
College of Agriculture, University of Illinois.

Printed in furtherance of the Agricultural Extension Act  
approved by Congress May 8, 1914. H. P. Rusk, Director  
Extension Service in Agriculture and Home Economics  
University of Illinois, Urbana



TWENTIETH  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 7 minutes

March 7, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) Once again we bring you the ILLINOIS FARM FLASH presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. These agricultural reports come to you as a public service feature of Station \_\_\_\_\_. Today we'll hear about CROPS FOR WEED-TREATED SOIL, ANEMIC PIGS, and the FEED AND WHEAT SITUATION.

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(1:15) For several years, wheat prices have not been very encouraging to wheat growers.

But last fall, prices of wheat began going up. They were at their high point in December and early January.

Then, during the last half of January, they began going down.

However, during February, wheat prices began climbing back up again. Late in February, they had advanced to within about 6 cents of the highest point of the season.

Why have prices tumbled and then climbed back?

One of the reasons prices went down in January was that the weather had become more favorable over much of the winter-wheat belt....a bigger crop was in prospect.





Another reason for the price drop was that traders were uncertain about the way the wheat under Government loan would be marketed....too much released at any one time would endanger the market for all wheat.

In February, prices of wheat began going up because: Demand for wheat and flour had increased....The weather apparently had damaged some of the European crop....Foreign demand for our wheat had improved--since January 19, about a million and a half bushels of wheat, including flour, had been shipped to China and Hong Kong, and Russia had bought between 1 and 2 million bushels....And the wheat under Government loan was being marketed in a fairly orderly way. So for all these reasons, prices of wheat went back up in February.

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(1:15) Here's the feed situation.

You remember, of course, that the droughts of '34 and '36 made feed scarce and high priced. And farmers had to sell off a lot of their livestock.

Then after the droughts, feed became plentiful and farmers began raising more stock again.

Well, during the past year, the production of livestock began "catching up" with the feed supply. And prices of feed began going up and prices of livestock began coming down.

By the beginning of this year, the relation of feed prices and livestock prices had become unfavorable to livestock producers....and late in February, continued to be unfavorable.



Prices of hogs, cattle, and eggs are lower than they were a year ago. Butterfat is higher priced, however.

Prices of feed grains: Corn prices are about 10 cents higher than last year, oats about 14 cents higher, barley about 6 cents higher.

Supplies of feed grains: The supply of corn is now much larger than usual, but much of it is under Government seal. The supply of corn not under Government seal is perhaps 50 million bushels smaller than a year ago. But the carryover for October 1, 1940, is expected to be 100 million bushels larger than a year earlier. The total supply of all high-protein feeds is larger this season than last.

Demand for feed grains: We have more livestock, but livestock prices are lower. And the lower prices weaken the demand for feed.

Foreign demand: Total exports of corn may be as large or larger this marketing year than last. We continue to import more oats than we export. During the last half of 1939, exports of barley were smaller than during the last half of '38.

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(3:00) Now a word about crops for weed-treated soil.

A great many farmers and gardeners have treated land with sodium chlorate to kill weeds. One big problem is: What to plant on that land to get some use of it, and to check soil washing, until the chlorate leaches out and they can go ahead with their regular crops.

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Well, if you get a pencil, we will give you a few of the important crops that seem to have a good bit of resistance to chlorate.

While you get the pencil here are a few general facts as to what federal and state weed men have learned so far about the use of chlorated land. To begin with, as a general rule, do not plant anything at all--in fact, do not even touch the land with a plow--for about a year after you apply the chemical weed killer. If you plow and seed a crop in much under a year, you are likely to lose the value of the chlorate in killing the weeds--and also are likely to lose the crop you plant. Sometimes, of course--especially under very dry conditions--you might have to wait considerably longer than a year.

Once you plant a crop, your luck depends a lot on weather and soil conditions. Cool weather often increases the damage chlorate does to certain crops. --While warm weather and plenty of moisture reduce injury.

Now, assuming that you have waited the year after applying the chlorate, here are a few of the crops that show the most resistance to the chlorate.

First, the crops very resistant. They include some of the perennial grasses. --If you care to note them: the wheat grasses--bluegrass--timothy--as well as certain others. Those are very resistant.





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Then come the fairly resistant crops--those second best for chlorated fields. They include flax (if the season is reasonably warm)--oats--and two of the clovers: alsike clover and white clover. To repeat: flax, oats, alsike and white clover. Those are fairly resistant.

Next, crops only moderately resistant to chlorate--crops that are third best choice. They include wheat--rye--sweet clover--alfalfa--and red clover....Wheat--rye--sweet clover--alfalfa--and red clover. They are third choice for chlorated land.

Those three groups include the main crops most likely to succeed on land that has been treated with sodium chlorate. A few crops usually DO NOT do well--and SHOULD NOT be planted. For example, do not plant corn, soybeans, or field peas. Do not plant barley, buckwheat, vetch, or winter rape.

Different soil and weather conditions might change the results with some of those crops. The line-up may be changed by further observations and experiments. But, on the basis of facts now available, the weed specialists have found it best to wait about a year before you even plow land that has been treated with chlorate weed killer. And then, in picking crops likely to succeed, your best bet is one of the perennial grasses such as wheat grasses, bluegrass, orchard grass, or timothy. Second choice is a group including flax, oats, and alsike, or white clover. And the third group--those only moderately resistant to chlorate--include wheat, rye, sweet clover, alfalfa, and red clover.



You can get further information about choice of crops to plant on land that has been treated with sodium chlorate from a new leaflet put out by the U. S. Department of Agriculture, Washington, D. C.

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(1:00) Here's a final note about saving anemic pigs with proper treatment.

W. E. Carroll, head of the animal husbandry department at the University of Illinois College of Agriculture, says that Illinois farmers will want to be on the lookout for nutritional anemia. It develops as a result of a lack of iron in the feed of nursing pigs that are kept in pens away from the soil.

Dr. Carroll says, "Weather conditions in most sections of Illinois are so severe through most of March that young pigs cannot well be given the run of pasture. Fortunately, the sucking pig's iron intake, under pen conditions, can be increased sufficiently by any one of several methods."

One of these methods is to place in the pen a shallow box of clean soil or a block of sod. The pigs will usually work it over in such a manner as to get the required iron. You can also apply some iron solution to the udder of the sow which the pig cannot avoid getting if he feeds at all. A solution of copperas (ferrous sulfate) can be used. One pound of copperas dissolved in one gallon of water may be applied to the udder of the sow every other day with a clean brush. This treatment should be continued as long as the sow and pigs remain in the pen.

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CLOSING ANNOUNCEMENT: ( :10) And so we conclude another ILLINOIS FARM FLASH brought to you as a public service of Station \_\_\_\_\_.in co-operation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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Printed in furtherance of the Agricultural Extension Act  
approved by Congress May 8, 1914. H. P. Rusk, Director  
Extension Service in Agriculture and Home Economics  
University of Illinois, Urbana



TWENTY-FIRST  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois  
AGRICULTURE  
ECONOMICS

Speaking time: 7 1/4 minutes

March 11, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) We bring you at this time the ILLINOIS FARM FLASH--a public service feature of Station \_\_\_\_\_. These agricultural reports are presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Today we'll hear about WEED CONTROL THROUGH TILLAGE, LAMB FEEDING, THE SOY-BEAN-AND-SEED SPECIAL and THE QUALITY OF LIMESTONE.

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(2:00) Illinois farmers have shown a growing interest in liming--which for several years has kept this state at the head of the procession as to amounts used, according to E. E. DeTurk of the University of Illinois College of Agriculture. He points out that for the past four years Illinois has been the only state to use more than a million tons of limestone a year on the soil. In 1939 the amount spread was in excess of a million and a half tons.

But DeTurk goes on to say that it's quality as well as quantity that counts when it comes to spreading limestone. You know--before limestone can function it must dissolve. And the size of the particles determines the rate at which this takes place. For instance, powdered sugar will dissolve in less time than an equal amount of rock candy. The same thing is true with limestone. For example, 8 mesh is relatively high in value, while 4 mesh is low.

A rating scale--that gives to different-sized particles their proper value--has been devised at the Illinois Station. A fineness rating of 86--the average for Illinois limestone last year--is good but not good enough. A rating of 90 should be

(Continued)





reached, DeTurk says. And such fineness can be attained with little or no increase in production cost, except in some cases an initial cost of changes in screening equipment.

In spite of this, however, coarse limestone is still being sold and used on a number of Illinois farms. Some was sold last year that tested as low as 56 in fineness at prices little different from those of limestone testing more than ninety.

Purity--or chemical quality--is also of prime importance. It's only the calcium (and magnesium) carbonate in the limestone that does the work. Most Illinois limestones that are crushed and used are 90 per cent or better--but there's plenty of low-grade limestone in the ground--unquarried. If it's less than 75 per cent pure it is definitely low grade, and below 80 per cent purity is not too good.

It will pay farmers who plan to spread limestone in 1940 to check as to the relative fineness of the limestone to be used, and then use the best quality possible, both as to fineness and purity.

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(1:00) All aboard! The "Soy-Bean-and-Seed" Special is leaving Freeport, Illinois, on March 19 for points south. The train, being operated by one of the leading railroad companies in the Middle West in cooperation with the University of Illinois College of Agriculture, will stop in 52 different towns during its tour of the state. You can check with your station agent or your local farm adviser as to the time it will be in your vicinity.

(Continued)



Features of special interest include: exhibits of soybeans, importance of inoculation, feeds and feeding of livestock and things made from soybean plastics. There will also be exhibits of oats, barley and flax. Qualified attendants will be in charge of the exhibits to answer your questions.

The train with its moving picture car and exhibits will provide lessons of interest not only to farmers, but also to high school students, civic clubs, chambers of commerce, business men, women, girls and boys.

The train is being operated for the betterment of farming conditions, so all of you are invited to pay it a visit. Don't miss it! Come and bring your neighbors.

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(1:40) You can't make a silk purse of a sow's ear. Neither can lambs grow and get fat on wind and water, says W. G. Kammlade of the University of Illinois College of Agriculture. Good feeds in such quantities as the lambs will eat are the things by which they accomplish growth and fattening.

According to Kammlade, milk is of first importance. He says you can go to any flock, pick out the fattest lamb and you'll have the one that had a plentiful supply of its mother's milk. Occasionally, of course, lambs do get digestive troubles because of too much milk--but the result is seldom so disastrous as when they don't get enough.

(Continued)



However, as lambs grow, milk alone is not enough. Grains and roughages are needed. It's often observed that lambs on very good pastures with their mothers grow as well<sup>as</sup> or better than lambs fed in dry lot. So it's advisable to have pastures ready as soon as possible.

Of course, ewes and lambs need to be well fed before pastures are ready. Creep feeding is strongly urged under such conditions. You know, lambs are most easily fattened if kept fat all the time they're growing.

One of the best mixtures for use in creep feeding may be made from alfalfa hay--or other good legumes--corn, oats and soybean oilmeal. If the grains are ground and the hay cut or ground and then these mixed--the lambs may have all they will eat. Fifty pounds of cut choice-quality alfalfa hay; 20 pounds of whole oats; 20 pounds of ground corn; and 10 pounds of soybean meal makes the best proportioned mixture.

If one wishes to creep feed lambs that are on good pastures, it is usually necessary to have some means of keeping the lambs in an enclosure for some time each day. This is about the only way that lambs getting a good supply of milk from their mothers and grazing good pastures can be made to eat significant quantities of grain and thus make creep feeding worth while.

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(2:00) A final note about weeds. Weeds, whether annuals, biennials or perennials--are most effectively controlled by cultivations made during the seeding stage, according to

(Continued)

the following conditions are satisfied:

- (1) The function  $f$  is continuous on  $[a, b]$ .
- (2) The function  $f$  is differentiable on  $(a, b)$ .
- (3) The function  $f$  is not constant on  $(a, b)$ .

Let us assume that

$$f(a) = f(b) = 0 \quad (1)$$

and let us suppose that  $f$  is not identically zero on  $(a, b)$ . Then, by (1), we have  $f(a) = f(b) = 0$ . Since  $f$  is not constant, there exists a point  $c \in (a, b)$  such that  $f(c) \neq 0$ . Without loss of generality, we may assume that  $f(c) > 0$ . Then, by (1), we have  $f(a) = f(b) = 0$ .

Since  $f$  is continuous on  $[a, b]$ , it attains its maximum value on  $[a, b]$ . Let  $M$  be the maximum value of  $f$  on  $[a, b]$ . Then, by (1), we have  $f(a) = f(b) = 0$ . Since  $f$  is not constant, there exists a point  $c \in (a, b)$  such that  $f(c) > 0$ . Then, by (1), we have  $f(a) = f(b) = 0$ .

Since  $f$  is differentiable on  $(a, b)$ , it has a unique tangent line at each point in  $(a, b)$ . Let  $T_c$  be the tangent line to the graph of  $f$  at the point  $(c, f(c))$ . Then, by (1), we have  $f(a) = f(b) = 0$ . Since  $f$  is not constant, there exists a point  $c \in (a, b)$  such that  $f(c) > 0$ . Then, by (1), we have  $f(a) = f(b) = 0$ .

Let us assume that

$$f(a) = f(b) = 0 \quad (2)$$

and let us suppose that  $f$  is not identically zero on  $(a, b)$ . Then, by (2), we have  $f(a) = f(b) = 0$ . Since  $f$  is not constant, there exists a point  $c \in (a, b)$  such that  $f(c) \neq 0$ . Without loss of generality, we may assume that  $f(c) > 0$ . Then, by (2), we have  $f(a) = f(b) = 0$ .

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Let us assume that  $f$  is not identically zero on  $(a, b)$ .

Then, by (1), we have  $f(a) = f(b) = 0$ .

Since  $f$  is continuous on  $[a, b]$ , it attains its maximum value on  $[a, b]$ .



E. E. Cockrum from the department of agronomy, University of Illinois College of Agriculture. Cockrum goes on to say that a good seedbed gives the crop an even start with the weeds.

For established perennial weeds--summer fallowing is one of the cheapest and surest methods of eradication. Cultivation may be started in the spring after the plants appear, and made about every week or ten days throughout the summer. For these cultivations, Cockrum says that a duckfoot cultivator has been the most satisfactory. However, it will require a little more than one season of such treatment to eradicate bindweed or other perennial weeds. Experiments conducted at the Illinois Station have shown that about 10 to 12 such cultivations are required the first year and five or six the second year where there is a heavy infestation of bindweed.

In order to grow a crop every year and have a cover on the soil during the winter--a combination of fallowing and winter wheat or rye may be used. Cultivations should be started soon after a grain crop is harvested and continued until time to seed winter wheat in the fall.

Cockrum also mentions that a good crop rotation providing the proper sequence of cultivated crops helps prevent many weeds from getting a start. It costs no more to have a good rotation than a poor one, and it goes a long way toward controlling weeds. For example, the use of cultivated crops, grain crops and hay crops in a good sequence prevents weeds from getting started. In planting soybeans--some of our better Illinois farmers are now planting in rows and cultivating to prevent the spread of such weeds

(Continued)



as velvet weeds and cockleburrs that have become so common in drilled soybeans. Such practices as this in our crop rotation cost little more than those of a poor rotation and result in less weeds and increased yields of crops.

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CLOSING ANNOUNCEMENT: ( :15) As so we bring to a close our agricultural reports for today--a public service feature of Station \_\_\_\_\_. The ILLINOIS FARM FLASH was presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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Printed in furtherance of the Agricultural Extension Act  
approved by Congress May 8, 1914. H. P. Rusk, Director  
Extension Service in Agriculture and Home Economics  
University of Illinois, Urbana



Speaking time: 6½ minutes

March 18, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) It's time now for the ILLINOIS FARM FLASH--a public service feature of Station \_\_\_\_\_. These agricultural reports are presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Today we'll hear about THE TURKEY CROP, HOW LIMESTONE IS BEING APPLIED and EDIBLE SOYBEANS.

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(1:30) Has your family tried this new vegetable that is getting so popular over the country--this vegetable soybean? Not the regular field soybean--not the kind we grow for oil or stock feed. This is a special garden type of soybean--a bean developed for the table.

Now these vegetable soybeans are mighty good. They have a richer, more nutty flavor than some of our other common legumes. And they cook up more quickly than the soybeans grown as a forage crop, or for the oil mills. They're high in food value, too. More food value, for example, than our common table beans.

During the past five years, when seed wasn't available through the regular seed trade, the University of Illinois College of Agriculture distributed small packets of edible soybean seed upon request for home garden planting--so that opportunity might be afforded for testing this new vegetable. According to J. W. Lloyd, head of the department of horticulture at the University of Illinois College of Agriculture, requests were received from almost

(Continued)



every state in the Union. In Illinois alone there were more than 600 persons in 90 counties who were sent seed in 1939.

Professor Lloyd says that more than 200 growers to whom seed was sent returned written reports pertaining to their experience with the edible soybean. Three-fourths of this number reported successful culture. The one-quarter failures were caused by various crop hazards such as rabbits, grasshoppers, root worms and a number of others.

If you're interested in these vegetable soybeans for your own garden, you'll find that seed is now available through regular seed channels. A list of the various sources will be sent in response to requests addressed to the University of Illinois College of Agriculture in Urbana.

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(2:00) Illinois farmers who feel they can't afford to buy limestone--will find that a genuine desire to use it--strengthens their credit opportunities, according to F. C. Bauer, agronomist at the University of Illinois College of Agriculture. A net return of 200 to 700 per cent is never a bad risk.

That rate may seem a little high--and it is a little high--but not at all impossible. Records from the Illinois experiment fields--for instance--show that limestone applied to lime-deficient soils in connection with good cropping practices has paid excellent dividends, Bauer says. Let's cite some figures.

For the four-year period ending 1939--a ton of limestone used on dark-colored corn-belt soils was worth \$9 in livestock systems of farming and \$12 in grain systems. For the

(Continued)





light-colored soils in southern Illinois, these values changed to \$25 in the livestock systems and \$17 in the grain systems. If we assume that it costs three dollars a ton to get the limestone on the land--you can see that those values show a net return from 200 to 700 per cent. Even if the limestone costs were six dollars--which would be unusually high--the profits for its use would range from 50 to more than 300 per cent.

Now why isn't more limestone being used? Bauer says that one of the major reasons in the past has been the back-breaking labor involved in handling, hauling and spreading. Of course --there are some men now who make a business of hauling and spreading limestone. By providing themselves with good equipment--they can plan for economies that reduce the cost to the consumer. Bauer cites instances where farmers have had limestone hauled directly from the quarry 60 miles away and spread over their fields at a cost of only \$2.35 a ton.

Bauer points out that due to the intensified interest in applying limestone coupled with the modern methods of hauling--it is quite likely that the annual use of two million tons is not far away.

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(2:30) A final note about the turkey crop.

Most every turkey grower is interested at this time of the year in what other turkey growers plan for the season. Now here are a few words on what turkey growers generally say they have in mind for 1940. These are turkey growers from all parts of the country.

(Continued)



Well, from their reports, it appears likely that turkey production in 1940 will go up some 4 to 5 per cent over what it was last year. Growers are going in for more home-hatched poult--and fewer poult from commercial hatcheries. Present prospects indicate that growers will get about 1 per cent fewer poult from the commercial hatcheries. And that home-hatching will be increased about 9 per cent over last season.

As of February 1, growers report 7 per cent more turkey hens on hand than they had on February 1 last year. But it is pointed out that more turkey hens and plans for raising more turkeys this year than last don't mean for sure that they will be raised. The number raised depends upon the weather and other variable conditions that affect the birds during hatching, the growing period, and the marketing season.

This general prospect is for the country as a whole. By regions, the outlook varies. In the north east central and south central parts of the country, growers plan about an 11 per cent increase over last season's turkey crop. That's the biggest increase planned for any part of the country. In the north Atlantic states, a 6 per cent increase is planned. And in the west north central states, a 5 per cent increase is planned.

In other parts of the country things are different--at least they are so far as turkey crop prospects are concerned. Farmers in the south Atlantic states say they plan to produce only about the same number of "turks" this year as they turned out last season. They aren't going to increase. And in the far west, growers plan to produce about 3 per cent fewer birds than they produced in 1939.

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Looking back to last year, turkey production in 1939 was around a fourth to a fifth larger than the year before. That meant a considerable increase in the market supply. And the larger market supply brought prices down about 3 1/2 cents a pound below the level of 1938 turkey prices. Growers sold their 1938 birds for about 17 1/2 cents a pound. That's the average farm prices for 1938. But last year's crop brought an average of only 14 cents.

Also, storage stocks of frozen turkeys are larger than a year ago. On February 1, stocks of frozen turkeys were around 65 million pounds. That's more than twice as many pounds of frozen turkeys as a year earlier. And more than twice as many pounds as the 5-year average figure for February 1 stocks.

Possibly the lower prices for last year's turkeys helped check the big upturn in turkey production that occurred in 1939. Possibly the large stocks of frozen turkeys in coolers has something to do with it. Growers haven't said why they have planned as they have. But those who have reported say they plan to produce about 4 to 5 per cent more turkeys--on the average--than they produced last year.

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CLOSING ANNOUNCEMENT: ( :10) And so we bring to a close another ILLINOIS FARM FLASH. These agricultural reports are presented in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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Printed in furtherance of the Agricultural Extension Act  
approved by Congress May 8, 1914. H. P. Rusch, Director  
Extension Service in Agriculture and Home Economics  
University of Illinois, Urbana





TWENTY-FIFTH  
ILLINOIS FARM FLASH

(From the U. S. Department of Agriculture  
(and Extension Service in Agriculture and  
(Home Economics, College of Agriculture,  
(University of Illinois

Speaking time: 8 minutes

March 25, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) We bring you now the ILLINOIS FARM  
FLASH--a public service of Station \_\_\_\_\_. These agricultural reports  
are presented in cooperation with the United States Department of Agri-  
culture and the College of Agriculture, University of Illinois. Today  
we'll hear about: CAN FERTILIZERS TAKE THE PLACE OF LIMESTONE?,  
HICKORY TOOL HANDLES, AGRICULTURAL BRIEFS, WOOL PROSPECTS and THE LAMB  
CROP.

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(2:00) Spring lamb time is here. And here are  
a few words on the way the early spring lamb crop is turning out.

For the country as a whole, this year's  
crop is showing up about the same number of lambs as the rather/<sup>large</sup>early  
lamb crop produced last year. But conditions vary from one area to  
another a bit more than usual. Here's about the way the reports from  
the different early lambing regions are coming in.

In the eastern early lambing states,  
weather and feed conditions have been unfavorable to the lambs.  
January was a severely cold month and cut down the winter grazing  
available for the lambs. That held back gains and maturity of the  
crop in the east. And February was a wet month. That brought rather  
heavy death losses.

But to offset the situation in the east,  
conditions have been more favorable in the west. In the North Pacific

(Continued)



Coast states and Idaho, weather and feed conditions have favored the lambs. And in Arizona conditions have been exceptionally favorable.

Then there are the important sheep and lamb areas of California and Texas. In California, dry weather at lambing time meant a good lamb crop. Plenty of rain to grow pasture and range grass after lambing time gave plenty of feed. This situation has been a lot more favorable than last year when green feed was scarce. In Texas, also, the season has been more favorable for the growth of the early lambs. As a result, many more early lambs in California and Texas are expected to reach slaughter weight by July 1 than was the case last season.

Well, so much for the crop itself. But how about the prospects for marketing and slaughter supplies during the next three or four months? April slaughter supplies of sheep and lambs probably will be some smaller than the April slaughter last year. But in addition to prospects for more lambs than last year from Texas, it's likely that Texas shipments of grass fat yearlings and wethers before July 1 will be bigger than during the May and June period last year. So the slaughter of sheep and lambs during May and June probably will be considerably larger than the reduced slaughter during these months last year.

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(1:15) Now about prospects for wool this year.

Of course, it is too early to tell much about prices for the new wool clip. But sheep shearing is already getting well under way in some parts of the country--and economists say that when the new wool year opens the first of April, the supply situation is likely to be favorable to wool growers.  
(Continued)



They say that even if imports this month and last have been larger than usual and even if the mills in this country don't use as much wool as they did last year, still supply conditions favor the grower. They figure the carry-over the first of April will be the smallest in recent years.

And they don't expect developments in foreign wool markets to have an unfavorable effect on the market here. True, world wool production hit a new high last year, chiefly because of bigger production in Australia and South Africa. But now only a little Australian wool is going to neutral countries, and the selling prices of Australian wool are fixed by the British Government Wool Control. Since early January, wool prices in South Africa and in South America have advanced sharply. And supplies of good-quality wools in those countries are reported to be clearing rapidly.

So all in all, the prospects for wool growers in the United States are not bad, but will not be so extremely favorable to growers as was anticipated six months ago.

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(1:15) When early American colonists looked about them for tool handles, they took a tip from the Indians and used wood from the hickory tree. The first tool handles were probably made from small, straight branches or saplings of the tree and were used in their rough shape. Today hickory is still the preferred wood. Hickory handles are in daily use on practically every American farm, in thousands of American homes and in the hands of most American laborers. It has displaced native woods in many foreign countries.

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Formerly handles were made from white sapwood, the red heartwood being discarded. However, after tests on more than 7,000 samples of red and white hickory, it has been proved that, weight for weight, sound hickory has the same strength, toughness, and resistance to shock regardless of whether it is red, white, or bl--, I mean--mixed red and white. Of two pieces of hickory of the same size and dryness, the heavier will have the better strength properties. As a further guide in choosing a good tool handle, the best hickory shows an oily or glossy side-grain surface when smoothly finished and has a clear, ringing tone when dropped on a hard surface.

Farmers in Illinois, where hickory is abundant, will find it good economy always to keep a small supply of seasoned hickory on hand for tool handles and for repairing machinery.

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(1:30) Can fertilizers take the place of limestone as soil conditioners?

A. L. Lang, of the University of Illinois College of Agriculture, says that to think of substituting fertilizers for limestone--would be like substituting cream for sugar in your coffee. Now--some people like neither; some people like one or the other; but most people like the proper balance of both. Lang goes on to say that the same thing is true with soil--some soils need neither limestone nor fertilizer; some soils may get along with limestone without fertilizers; and there are soils where fertilizers would be beneficial without limestone. But most soils need the proper balance of both.

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Lang likens a good soil improvement program to a good livestock feeding program. You know--a good feeder balances the roughage he's feeding with a balanced concentrate ration. Good livestock feeders don't attempt to produce beef, mutton or pork on a roughage ration alone--nor do they try to produce those materials with concentrates alone.....But they balance their roughage feed with a good concentrate mixture. Then it seems just as logical that a grower of corn, wheat or oats should take care of his crop in the same way as the livestock man does his animals. In other words--he should supply a good roughage ration through the use of limestone and legumes and supplement that roughage with the proper fertilizers of phosphate and potassium. Thus we say that limestone, along with legumes, has a very definite place in our soil improvement program. We also say that fertilizers have a very definite place in our program; one being a conditioner of the soil--the other a nutritional balance to that soil.

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(1:30) Finally-- our agricultural briefs for today.

By July of this year, the U. S. Department of Agriculture expects the food stamp plan for increasing the sale of surplus foods to relief and low-income families to be in effect in about 100 cities--with between three and four million persons taking part. As you know, the plan is now in effect in two of our Illinois cities--Springfield and Peoria.

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The United States has been making further recovery of its exports of lard to Latin American countries--with sales last year nearly four times as large as in 1935. The Office of Foreign Agricultural Relations attributes the restoration of lard  
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exports to such causes as better economic conditions in some Latin American countries, trade agreements and the fact that we now have more lard to sell than we did in the drought years.

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They tell us America's appetite for dairy products has been growing for many years. And the Bureau of Agricultural Economics reports that last year people in this country consumed more dairy products than ever before on record.

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Several manufacturers are experimenting with a solution of soybean meal and formaldehyde developed by the U. S. Regional Soybean Products Laboratory, at Urbana, Illinois. The solution dries to a tough, hard, water-resistant material. It can be used as a tough, flexible finish for leather--and as a binder for sheets of heavy paper to make a highly polished boardlike product--as well as in many other ways.

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CLOSING ANNOUNCEMENT: ( :10) And so we conclude another ILLINOIS FARM FLASH. These agricultural reports come to you as a public service of Station \_\_\_\_\_ in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.

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Speaking time: 7:45 minutes

March 25, 1940

(FOR BROADCAST USE ONLY)

OPENING ANNOUNCEMENT: ( :20) Time now for the ILLINOIS FARM FLASH, a public service feature of Station \_\_\_\_ brought to you in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois. Today we'll hear about ADAPTED RED CLOVER SEED, MORE SMALL FARM TRACTORS, and TOP DRESSING WINTER WHEAT.

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(1:45) You know, top dressing winter wheat with nitrogen fertilizers is not always profitable, according to L. B. Miller, of the University of Illinois College of Agriculture. Miller recalls seasons when increases were very low. In fact on the more fertile soils, nitrate applications sometimes caused actual yield reduction by stimulating excessive straw growth and making wheat lodge.

Average results from 22 wheat crops on limed land on 10 different farms during the years 1931 to 1938 gave increased yields of 3.9 bushels an acre, it was pointed out by Miller. Some of the responses were very high; others very low. At the present time he says they're trying to outguess the weather man and learn how to predict when a responsive season is at hand.

Many studies have been made to discover the best date for applying nitrogen-carrying fertilizer on winter wheat. This date seems to vary greatly from year to year--being largely dependent upon the stage of growth of the wheat plants. There is no great demand for nitrogen until growth becomes quite active. For

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central Illinois--this is usually early April--and best results have come from treatments made during late March or the first week of April.

Of course, the kind of nitrogen carrier used has a bearing on the speed with which it may be taken up by plants. Miller says that sodium nitrate is most quickly effective--and--with late applications--has given larger yield increases than either ammonium sulphate or calcium cyanamid.

While it is possible to supply nitrogen by top dressing--this method contributes very little in the way of organic matter, erosion control and the many other advantages which follow the use of legumes. To quote Miller: "Let's try to grow our nitrogen supply at home on our own farms and resort to buying it only when the weather man or the rotation fails us."

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(3:00) Now let's review the parade of new 1940 farm tractors--and note, two or three of their more important new features.

Right off, we notice a further increase in the proportion of small farm tractors sold in certain regions--tractors with 12- to 15-belt horsepower--tractors that sell for around 500 to 600 dollars.....One company brought out a small tractor in 1937--and now six or eight companies are making them...Most of these small tractors are the one-plow, one-row-cultivator type. They are also used with the 40-inch combine to harvest grains on small farms..... These small tractors are designed mainly for the family-sized farms--farms of maybe 20 to 100 acres. The increase in the sales of these small tractors until they now make up a considerable proportion of all

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tractors sold reflects partly the breaking up of large farms into smaller ones--partly a new effort by the manufacturers to "enter" the "two-horse" farm business. (Also, incidentally, large operators who already have big tractors are buying a second smaller one for odd jobs such as hauling the manure spreader, grinding feed, and so on. Something like the two-car idea.)

With most of these small tractors, you can adjust BOTH the front AND rear wheels for row width. They also have power take-off to operate combines and other machinery. And some of them have attached plows--with hydraulic arrangements to lift and lower plows and other equipment.

Well, those little fellows certainly are a contrast with the first tractors in this country--say the Standish "Steam Plow" of 1868 with its vertical steam boiler and a pair of horizontal engines carried on two wooden drive wheels 2 feet wide and from 6 to 10 feet in diameter. Or the later steam outfits that hit their peak about 1910...Big lumbering affairs weighing 35 or 40 thousand pounds that required two to a half dozen men to run them and a team or so of horses to keep them in fuel and water. In fact, even beside the earlier gasoline tractors, these new ones would look like a pony alongside a draft horse.

But to get along with the tractors of 1940...Another thing you'll notice is a further increase in the proportion of tractors on rubber tires. In 1938, about 65 per cent of them on rubber--last year about 75 per cent--this year estimated about 80 per cent...Four out of five....Studies reveal that rubber tires save 5

(Continued)



to 20 per cent on fuel--and increase the life of the tractor by maybe 25 per cent. As for pulling power, the steel wheels are best for low gear--but at higher speeds, the rubber tires have it.

With that look at the tires, let's glance at some facts about the increased efficiency of the new tractors. Ten years ago, you got 225 pounds of tractor for each horsepower at the belt as against only 190 pounds this year. And you get 80 per cent of the belt horsepower at the drawbar--as against 76 per cent in 1930. And about 10 horsepower hours at the belt for each gallon of fuel as against about 9.

Well, those are a few important features about the possibly 200 thousand new tractors that will take their places this year alongside another one and three-quarter million tractors on American farms: more of the small tractors, more rubber tires, and greater efficiency.

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(2:30) A final note about adapted red clover seed.

This year, in buying red clover seed, farmers can be more certain than ever before of getting seed adapted to their conditions.--More certain because of the new Federal Seed Act.

We want to call attention to a couple of important requirements of the new act that apply to red clover seed grown in the United States. One requires the tag to give the State in which the seed was produced. Another makes it illegal for a dealer to label foreign seed as "adapted."

(Continued)



These requirements offer protection in particular on red clover seed from sections of the Pacific Northwest... As you know, seed grown, say, in western Washington and Oregon from western strains of clover may not do well under eastern conditions. On the other hand, if the seed is from parent stock adapted to conditions in this locality, it is all right.....Anyway, under the new act, the tag will have to give the state where produced. And that will be the buyer's tip-off to ask for certification as to the origin of the parent stock.

Then, of course, the new act will protect farmers on red clover seed moved from north to south--or south to north--to places where it is not adapted.

So far, we've talked only about red clover seed grown in the United States...Farmers already were pretty well protected on seed brought in from foreign countries. But, let's review briefly the situation on foreign seed--along with one important change that the new act makes.

The red-stained seed we've heard so much about in recent years--the red-stained seed from Italy--is pretty much a thing of the past. None of the unadapted Italian seed is now on the market.

But on the seed that is stained green-- (And that applies to seed from all European countries except Italy.) Well, there's a possibility of a good bit of the green European seed on the market this spring. And officials of the United States Department of Agriculture remind us that the green European seed is not adapted and should not be labeled "adapted." And they tell us that under the

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new act, a higher percentage of the seed must be stained green than in the past years--and so farmers will find it easier to identify the European seed.

On the third important type of foreign red clover seed--the Canadian seed that is stained a violet color--the act makes no change. The officials merely remind us that the violet-colored Canadian seed may be successful only when seeded in parts of the United States near the Canadian border.

So, when you buy red clover seed this spring, keep in mind that American-grown seed must give the state of origin--and that foreign seed must not be labeled "adapted." And keep in mind that we are likely to have some of the unadapted green-stained seed from Europe this year.

And, finally, remember that your best bet on red clover seed is locally grown seed--or seed certified as having been grown from locally adapted parent stock.

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CLOSING ANNOUNCEMENT: ( :10) And so we conclude another ILLINOIS FARM FLASH presented by Station \_\_\_\_\_ in cooperation with the United States Department of Agriculture and the College of Agriculture, University of Illinois.









UNIVERSITY OF ILLINOIS-URBANA



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